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NATIONAL PHOTOGRAPHIC
INTERPRETATION CENTER

USER'S MANUAL FOR THE PIRL QUERY LANGUAGE

REVISED EDITION

25X1

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MARCH 1971

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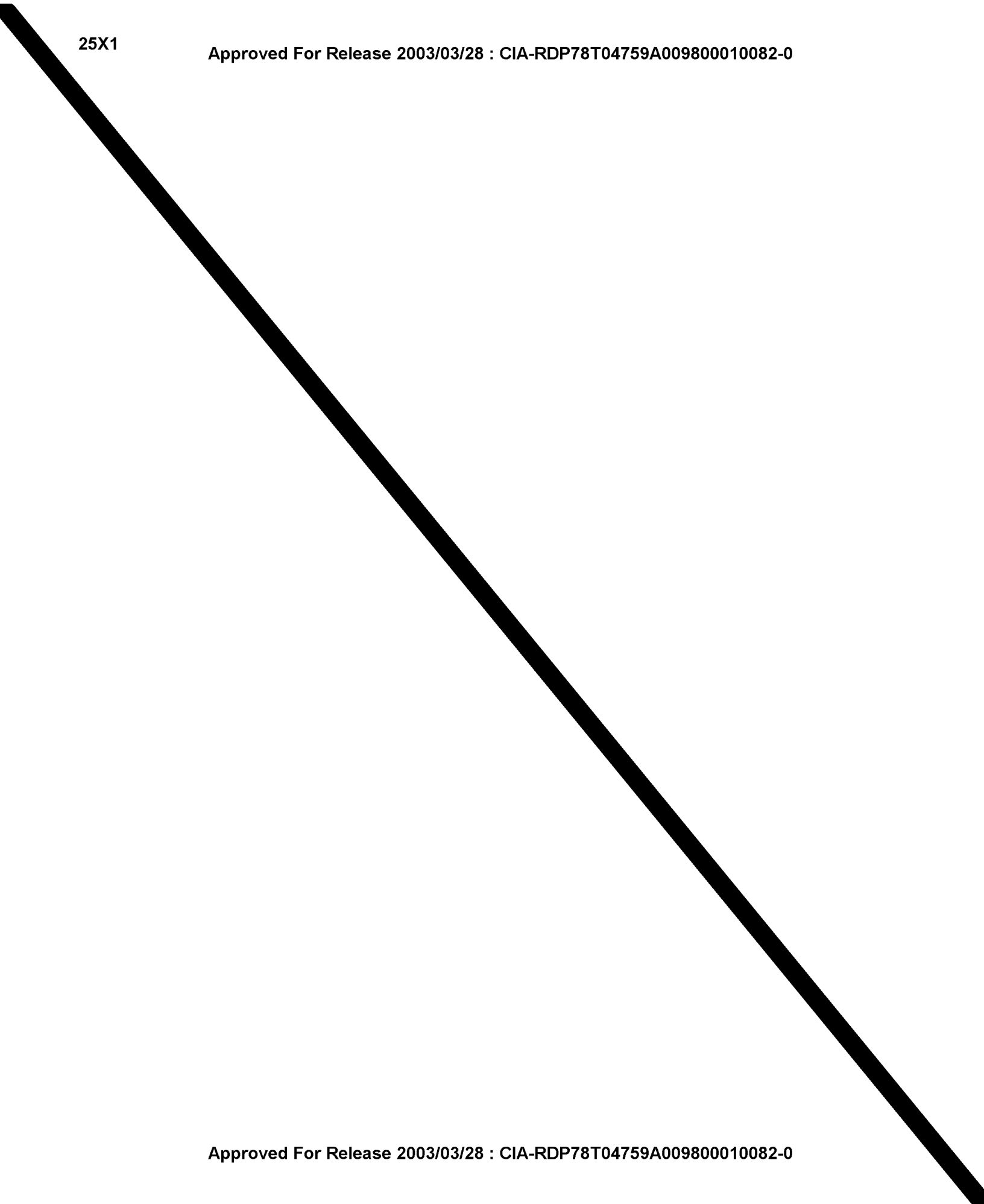

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USER'S MANUAL FOR THE PIRL QUERY LANGUAGE

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MARCH 1971

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TO THE USERS

This edition of the User's Manual for the PIRL Query Language replaces
25X1 the June 1970 edition [redacted], which should be destroyed.

Whenever necessary, revisions and/or addenda to this manual will be issued by the Automated Information Division, Production Services Group. If you need additional information on this query language or assistance in using it, contact the Chief/AID/PSG.

CHAPTER I. THE PIRL QUERY LANGUAGE

PIRL is an acronym for Photo Interpreter's Retrieval Language, an English-like language that will enable you to retrieve information from the Installations Data File (IDF), that is, to "query" this file. Each "query" is actually a series of statements that directs the computer to

* select from the file one or more records that meet your specifications and output a part of each record

* count the number of installations having identical features and output the total

The vocabulary of PIRL consists of mnemonics, that is, combinations of letters or of letters and symbols. Three of these mnemonics are the commands GET, INTER, and ALSO. Each introduces a different type of query which will direct the computer to perform the operations summarized above. Other mnemonics include the names of sectors, fields, and items in the IDF. Most will be used with certain values to construct queries.

To use PIRL effectively it is assumed that you are familiar with the IDF -- its contents, format, and mnemonics. This information can be found in Format and Mnemonics for Records in the Installations Data File. [Copies are available in AID/PSG.] All mnemonics that can be used in PIRL queries are presented in this publication and in APPENDIX A of this manual.

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The on-line equipment listed below can be used to transmit queries to the computer and to receive output.

* Sanders Tabular Displays [Model 920-102]
* Kleinschmidt Electronic Data Printers [Model 311]
* ASR Teletypes [Model 35]
* KSR Teletypes [Model 35]
* UNIVAC Data Communications Terminals (DCT) 2000

An explanation of on-line computer processing and of the equipment involved is presented in Introduction to the Remote Access Computer Service published by AID. Copies are available from the Chief, AID upon request. In order to use PIRL it is assumed that you know how to operate this equipment.

Answers to queries will be transmitted to on-line equipment in your work area shortly after you have submitted your queries. How to submit queries on these devices is explained in CHAPTERS VI and VII in this manual.

CHAPTER II. GET QUERIES

THEIR FUNCTION
AND STRUCTURE

Each time you transmit a GET query you direct the computer to do two things: (1) to select from the IDF one or more records that meet your specifications and (2) to output a sector or part of a sector of each selected record. You will specify which record or records are to be selected in the first line of the query. In the second line you will specify which sector or part of a sector of each selected record you want displayed or printed. Both lines are transmitted to the computer at the same time. The sentence structure of a GET query could be paraphrased in this manner:

> Select the record or records that meet the stated specifications.
> Display or print this part of each selected record.

If a record does not meet <u>all</u> your specifications, it will not be selected from the IDF.

In the order in which they will appear in line 1, specifications consist of

1) one of twelve mnemonics and a corresponding value which identify a target or group of targets; this specification is required;

2) the data (i.e., values) that must appear in a field or item in each selected record and the corresponding mnemonics for each; these specifications are optional.

What you should specify will depend on what you know about a target and what data you need from the file.

All mnemonics and the formats of their corresponding values needed for the two lines of a GET query can be found in Format and Mnemonics for Records in the Installations Data File and in APPENDIX A of this manual.

For your convenience, GET queries are summarized in CHAPTER VIII.

REQUIRED SPECIFICATION:
LINE 1

To begin composing line 1 of a GET query write GET, then the file mnemonic, IDF. Place a comma after each. Note that no space is permitted between the two.

GET,IDF,

Immediately after IDF, specify one of the mnemonics listed below and a corresponding value. See APPENDIX A. The first four concern only one target; the others, several targets.

Mnemonic	Value	Mnemonic	Value
IBE$$	BE number	ICOUN	Country code
ICOMI	COMIREX number	IGEO$	Geographic area
INPIC	NPIC number	ICOMP	IEG component code
MRN	Machine reference number	INCAT	NPIC category code
		INTPC	NTP category code
IMILI	Military district	ITSTA	NPIC code for target status
ICAT$	IDHS category code		

These are examples of required specifications for line 1 and what each directs the computer to do. Lowercase b in these and all subsequent examples represents a blank character position. To differentiate a zero from the letter O in all examples a zero is always typed as Ø.

GET,IDF,IBE$$[redacted] 25X1

Directs the computer to select from the IDF the record on the target identified by BE number [redacted] 25X1

GET,IDF,ICOMI [redacted] 25X1

Directs the computer to select from the IDF the record on the target identified by COMIREX [redacted] 25X1

GET,IDF,INPIC Ø169-1234-Qb.

Directs the computer to select from the IDF the record on the target identified by NPIC number Ø169-1234-Q.

Note the punctuation and spacing observed in all the examples. The mnemonic and its value are separated by a single space. When applicable, spaces must be allowed for unused character positions. The line must be closed with a period. Also note that the number of character positions in each value is identical to that given in APPENDIX A.

You can also specify a machine reference number since it identifies the record of a particular target. For example:

GET,IDF,MRN 6ØØ433.

Directs the computer to select from the IDF the record identified by machine reference number 6ØØ433.

In each of the examples cited below, the computer is directed to select several records from the file.

GET,IDF,ICOUN AL.

Directs the computer to select from the IDF the records on all targets in Albania.

GET,IDF,IMILI 321b.

Directs the computer to select from the IDF the records on all targets in military district 321.

25X1 GET,IDF, [redacted]

Directs the computer to select from the IDF all records on targets assigned IDHS category

25X1 [redacted]

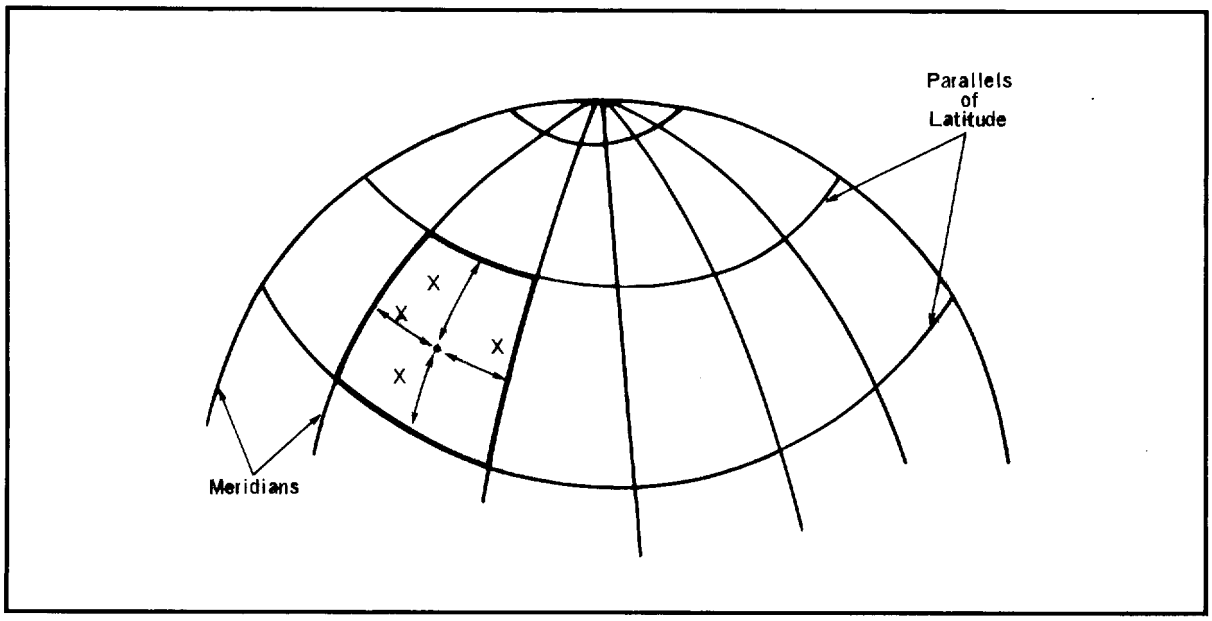
A word of caution about using a mnemonic that pertains to more than one target. It may direct the computer to select a large volume of records. For example, assuming that it is valid, the following construction in line 1 of a GET query would direct the computer to select over 10,000 records from the IDF:

GET,IDF,ICOUN UR.

Directs the computer to select from the IDF all records on targets in the USSR.

A record or records can also be selected from the IDF on the basis of the physical location of one or more targets. You may direct the computer to select records on all targets located within an approximately square area on the earth's surface. This square must be bounded by two parallels of latitude -- one X nautical miles (nm) north and the other X nm south of the center point -- and by two meridians -- one X nm east and the other X nm west of the center point along a parallel of latitude

passing through the center point. This square must not include the north or south pole.



To define such a square

1) determine the number of nm represented by one X; this number must be a whole number and less than 1,000;

2) express the geographic coordinates of the center point in degrees, minutes, seconds, and direction; measure latitude north and south from the equator and longitude east and west from Greenwich Meridian; if minutes and/or seconds are not known, specify zeros in the corresponding positions, otherwise the computer will not process your query; use leading zeros in latitude and longitude values.

Given these values, the computer will select the records for only those targets located inside the square you have defined. The mnemonic to be specified with these values is IGEO$.

When using the IGEO$ mnemonic, the general form of line 1 is this:

GET,IDF,IGEO$ X/Latitude/Longitude.

For example:

GET,IDF,IGEO$ 25/1Ø Ø4 53 N/14Ø 25 Ø7 E.

Directs the computer to select from the IDF all records on targets located in an area about 50 nm square and centered at the coordinates cited above.

Note the spacing and punctuation observed in this example. There must be a single space between IGEO$ and the nautical mile value; between degrees and minutes; minutes and seconds; and seconds and direction in the latitude and longitude values. Insert slashes (///) as indicated and close the line with a period.

OPTIONAL SPECIFICATIONS:
LINE 1

In addition to the required specifications in line 1, you may include other specifications which are optional. Whether or not you choose to do this will depend upon what information you need from the file.

Optional specifications consist of a sector mnemonic and

* either <u>one</u> field mnemonic and its corresponding value

* <u>or</u> one field mnemonic and one or more item mnemonics and item values; all items must be in the same field and sector

Optional specifications can pertain to targets or to target records. If a record does not meet the stated specifications, it will not be selected from the IDF.

Mnemonics that <u>cannot be specified</u> in this part of a GET query are listed in APPENDIX A in this manual.

<u>Specifying a Field</u>

Decide which field and value you want to specify and determine the format of that value. Then to line 1 of your query add the following in the order listed:

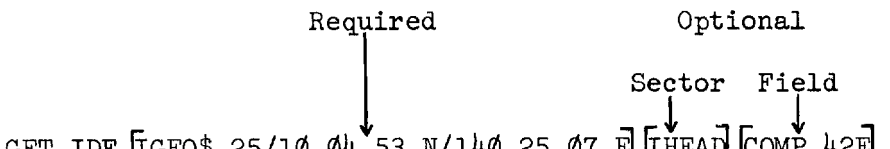
```
        Sector     Field    Field
. . . .,Mnemonic,Mnemonic  Value.
```

For example, to indicate to the computer that in each record the ELEV field in the ILOCA sector must contain the value, 2,500 feet, the first line of your query would be this:

```
             Required     Optional
                 |
                 |       Sector   Field
                 ↓          ↓       ↓
GET,IDF,ICOUN CH,ILOCA,ELEV Ø25ØØ.
```

Directs the computer to select from the IDF all records on targets located in China and situated at 2,500 feet above mean sea level.

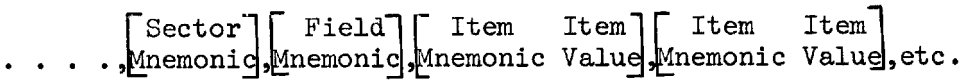
In the example given below the value that should appear in the COMP field in the IHEAD sector of each record is the IEG component code, 42E.



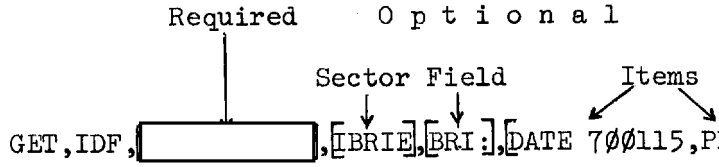
Directs the computer to select from the IDF the records on all targets
(1) located inside an area about 50 nm square;
(2) centered at the coordinates cited above; and
(3) for which IEG component 42E is responsible.

Specifying Items

Decide which item and value you want to specify and determine the format of that value. If you choose to specify more than one item, remember that each must appear in the same field and sector. To line 1 of your query add the following in the order listed:



For example:



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Directs the computer to select from the IDF records on all targets in [ ] provided that each record contains a brief report dated 15 Jan. 1970 and produced during third-phase exploitation.

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Required Optional

Sector Field Item

GET,IDF,[ICOUN PK],[ISTAT],[STA:],[PHAS 1].

Directs the computer to select from the IDF all records on targets in Pakistan, provided that the status of each target has been reported during first-phase exploitation.

Specifying a Range of Values

You may specify a range of values rather than a single value with a field or item mnemonic. Express the first and last values or the lowest and highest values, as appropriate. Such an expression indicates (to the computer) that you are willing to accept those records that contain any values within the specified range, including the last. Separate the two values with a slash (/). For example:

GET,IDF,ICOUN CH,ILOCA,ELEV Ø25ØØ/Ø3ØØØ.

Directs the computer to select the records on all targets located in China and situated at elevations of 2,500 to 3,000 feet, inclusive.

GET,IDF,IMILI 11Øb,IBRIE,BRI:,PHAS 3,DATE 69Ø6Ø1/6912Ø1.

Directs the computer to select the records on all targets in military district 110, provided those records contain brief reports produced between 1 June 1969 through 1 December 1969 during third-phase exploitation.

When specifying a range of values for an entire field in the IHEAD sector, you need not express the mnemonics for the items in that field. For example:

GET,IDF,ICOUN UR,IHEAD,COMI
GET,IDF,ICOUN UR,IHEAD,BE$$

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A few words about specifying a range of values comprised of more than one arrangement of alphabetic, numeric, and/or special characters. When directed to select records on the basis of a range of values, the computer will perform the selection according to the character sequence presented in APPENDIX B.

You may also wish to retrieve records on a wider range or class of targets, all of which could be identified by a given item. In the IHEAD sector several fields consist of items that can be specified for this purpose. For example:

GET,IDF,ICOUN UR,IHEAD,COMI,CMIP 7A.

Directs the computer to select records on all Soviet targets assigned COMIREX numbers beginning with 7A.

GET,IDF,ICOUN UR,IHEAD,COMI,CMIP 7A/9B.

Directs the computer to select records on all Soviet targets assigned COMIREX numbers [redacted] 25X1

GET,IDF,ICOUN UR,IHEAD,BE$$,BWAC Ø234/Ø239.

Directs the computer to select records on all Soviet targets assigned BE numbers [redacted] 25X1

Note that it is mandatory to cite the item mnemonic when specifying a range of values in this manner.

SELECTING RECORDS WITH BLANK FIELDS OR ITEMS

To select a record in which no data has been recorded in a specified field or item, i.e., the field or item is blank, construct your query as indicated on the preceding pages. However, for <u>every</u> character that could be recorded in the field or item you specify, write a pound sign (#) and then the letter A. Separate the pound signs from the letters with a

slash (/). For example, to direct the computer to select records on all targets without COMIREX numbers, write the query this way:

GET,IDF,ICOMP 233,IHEAD,COMI,CMIP ###/AAA.

Although cumbersome, the same statement could be constructed this way:

GET,IDF,ICOMP 233,IHEAD,COMI ##########/AAAAAAAAAA.

THE MRNLIST
MNEMONIC

Each time you transmit a query of any kind and receive an answer, a list of the machine reference numbers for the records pertaining to your answer is produced and stored temporarily in the computer. This list will remain in the computer only until you transmit another query; then it will be destroyed. It will also be destroyed when you terminate communications with the computer system.

If you wish, you may refer to this list in a subsequent GET query, provided that query is the next to be transmitted. The mnemonic for such a list is MRNLIST. When specified in line 1 of a GET query, MRNLIST directs the computer to limit its selection of records to those pertaining to your preceding GET query. Use MRNLIST instead of the required specification usually placed after IDF. No corresponding value is needed. For example:

GET,IDF,MRNLIST,IHEAD,COMP 21E.

From those records pertaining to your preceding GET query, directs the computer to select only those on targets that are the responsibility of IEG component 21E.

In your next GET query you may use MRNLIST to refer to the list of machine reference numbers produced by the query cited above. Thus, because MRNLIST always refers to your preceding GET query, you may add optional specifications to line 1 without repeating the previous query.

For example:

GET,IDF,MRNLIST,IHEAD,MILI 123b.

From those records pertaining to your preceding GET query, directs the computer to select only those on targets located in military district 123.

In your next GET query you may again use MRNLIST to refer to the records selected by the query cited above.

SPECIFYING YOUR OUTPUT: LINE 2

Line 1 of a GET query specifies which record or records are to be selected from the IDF. Line 2 directs the computer to output a sector or part of a sector of each selected record. This is the answer to your query.

Answers can be transmitted to a CRT, teletypewriter, or DCT 2000. Before writing line 2 of your query, decide which device will display or print your answer; this decision will affect the construction of line 2.

The first word in line 2 is always DISPLAY or PRINT. DISPLAY directs the computer to display your answer on a CRT screen. PRINT directs the computer to print your answer on a teletypewriter or DCT 2000. Which sector is to be displayed or printed is indicated by the mnemonic for that sector. Your answer can be any one of the sectors [or part of a sector] comprising each file record or the IHIGH sector in MRN 1. The sector you want output need <u>not</u> be identical to that specified in line 1 of a GET query, if a sector has been specified.

The general form of line 2 is this:

DISPLAY,[Sector Mnemonic]. or PRINT,[Sector Mnemonic].

For example:

DISPLAY,IHEAD.

Directs the computer to display the IHEAD sector of each selected record on a CRT screen.

DISPLAY,ILOCA.

Directs the computer to display the ILOCA sector of each selected record on a CRT screen.

If you transmit a GET query on a CRT or teletypewriter and want your answer printed on a teletypewriter or DCT 2000, specify PRINT and then the mnemonic of the sector you want printed. For example:

PRINT,IHEAD.
PRINT,ILOCA.

Note the punctuation observed in each example. DISPLAY and PRINT are always followed by a comma, and the line is closed with a period. No spacing is permitted between the command and the sector mnemonic.

You will indicate to the computer which device is to display or print your answer by means of a logical equipment number (LEN). The LEN for each on-line device is displayed on the front of that device, e.g., on a console or control panel. Which LEN to specify and when to transmit it is explained elsewhere in this manual.

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GETTING A PARTIAL
SECTOR AS OUTPUT

The answer to a GET query will be a partial sector if

* you specify in line 1 the mnemonic for a repeating field (optional specification)
* and in line 2 you specify the mnemonic of the sector in which that field is located

Given these conditions, your answer will consist of the specified occurrences of the repeating field from each selected record. For example:

GET,IDF,ICOUN PK,IPHOT,PHO:[redacted] 25X1
DISPLAY,IPHOT.

Directs the computer to
(1) select from the IDF records on all targets located in Pakistan and observed on photography from [redacted] 25X1
(2) and display on a CRT only the occurrences of the repeating field derived from mission [redacted] 25X1

GETTING MISSION
HIGHLIGHTS

In the IDF, mission highlights are recorded only in MRN 1. To direct the computer to select MRN 1 and output only those highlights in which you are interested, specify

GET,IDF,MRN ØØØØØ1,IHIGH,HIGH,Item(s) of Your Choice.
DISPLAY or PRINT,IHIGH.

In the required specification the leading zeros may be omitted. Because the HIGH field is a repeating field, you will receive only the occurrences

of the field that meet the specifications given in line 1. For example:

```
GET,IDF,MRN ØØØØØ1,IHIGH,HIGH,DATE 691212/691231.
DISPLAY,IHIGH.
```

Directs the computer to select from the IDF MRN 1 and display only those highlights dated from 12 to 31 December 1969, inclusive.

CHAPTER III. INTER QUERIES

An INTER query directs the computer to count the targets that can be identified by the features you specify, i.e., the targets having this feature and this feature and this feature. The answer is in this form:

NNNN UNIT RECORD(S) APPLY

If a target does not have all features specified in your query, the record on that target will not be included in the total count. If the answer to the query is that zero unit records apply, you will receive this message:

NULL SEARCH

Like a GET query, an INTER query also produces a list of machine reference numbers for the records pertaining to your answer. This list, which will be stored temporarily in the computer, gives you the capability of obtaining a sector from each record if you want it.

SPECIFYING TARGETS

An INTER query consists of two or more lines. In each line one of several mnemonics and a related value will identify a target or group of targets. In each INTER query you must specify at least two mnemonics and their related values but no more than twenty. Mnemonics for INTER queries are limited to those listed on the next page. The format of each is given in APPENDIX A.

Mnemonic	Value
IMILI	Military district
ICAT$	IDHS category code
ICOUN	Country code
IGEO$	Geographic area
ICOMP	IEG component code
INCAT	NPIC category code
INTPC	NTP category code
ITSTA	NPIC code for target status
ICOMI	COMIREX number
IBE$$	BE number
INPIC	NPIC number

To take advantage of the capability of this query, it is advisable to use those mnemonics listed above the dotted line. A COMIREX, BE, or NPIC number can identify only one installation. Therefore, if one of these features is specified in an INTER query, the answer to that query can only be this:

1 UNIT RECORD(S) APPLY

Or this:

NULL SEARCH

FORMAT OF AN
INTER QUERY

First Feature INTER,IDF,[Mnemonic Value];

Second Feature [Mnemonic Value];

.
.
.
.
.

Last Feature [Mnemonic Value].

Note the punctuation and spacing. Each line except the last is closed with a semicolon; the last line is closed with a period. Each mnemonic and its value is separated by one space. For example:

INTER,IDF,ICAT$ [redacted] 25X1
ICOMP 333.

How many installations have been
assigned IDHS category code
25X1 [redacted]
and are the responsibility of IEG
component 333.

INTER,IDF,IMILI 331b;
IGEO$ 25/1Ø Ø4 36 N/11Ø 25 14 W;
25X1 [redacted]

How many targets are in military
district 331;
and in an area 50 nm square,
centered at the coordinates
cited above;
and are assigned IDHS category
25X1 [redacted]

THE MRNLIST
MNEMONIC

If you have received an answer to your preceding query, a list of machine reference numbers pertaining to that answer has been temporarily stored in the computer. You may refer to this list in an INTER query, provided it is the next you transmit. To refer to such a list specify the MRNLIST mnemonic instead of the usual feature in any line of the query. MRNLIST directs the computer to determine how many targets represented on that list have the other features you have specified. For example:

```
INTER,IDF,ICAT$ [redacted]                    25X1
ICOUN PK;
MRNLIST.

How many targets are assigned
    IDHS category code [redacted]             25X1
and are located in Pakistan;
and are represented on a list
    of MRNs produced by the
    preceding query.
```

In your next query you can then refer to the list of MRNs produced by the query cited above. For instance, to get a sector of each record pertaining to the answer for this query, specify MRNLIST in a GET query. Or specify MRNLIST in another INTER query. Transmit this query after you have received an answer to the query cited above.

CHAPTER IV. ALSO QUERIES

An ALSO query directs the computer to determine how many targets identified by one of several features can also be identified by a second feature, i.e., how many targets have this feature or this feature or this feature and this feature. The answer is in this form:

NNNN UNIT RECORD(S) APPLY

If the answer to the query is that zero unit records apply, you will receive this message:

NULL SEARCH

Like GET and INTER queries, an ALSO query produces a list of machine reference numbers for the records pertaining to your answer. This list, which will be stored temporarily in the computer, gives you the capability of obtaining a sector from each record if you want it.

SPECIFYING TARGETS

An ALSO query consists of two or more lines. In each line one of several mnemonics and a related value will identify a target or group of targets. In each query you must specify at least three mnemonics and their related values but no more than twenty. The second feature is specified in the last line; the others appear in the preceding lines. Mnemonics for ALSO queries are limited to those listed on the next page. The format of each is given in APPENDIX A.

Mnemonic	Value
IMILI	Military district
ICAT$	IDHS category code
ICOUN	Country code
IGEO$	Geographic area
ICOMP	IEG component code
INCAT	NPIC category code
INTPC	NTP category code
ITSTA	NPIC code for target status
ICOMI	COMIREX number
IBE$$	BE number
INPIC	NPIC number

To take advantage of the capability of this query, it is advisable to choose a second feature from those listed above the dotted line. If you specify a BE, COMIREX, or NPIC number as a second feature in the last line of your query, the answer to that query could only be this:

1 UNIT RECORD(S) APPLY

Or this:

NULL SEARCH

FORMAT OF AN
ALSO QUERY

Alternative Features	Line 1:	ALSO,IDF,[Mnemonic Value];
	Line 2:	[Mnemonic Value];
	Line 3:	[Mnemonic Value];
		.
		.
		.
		.
Second Feature	Last Line:	[Mnemonic Value].

Note the punctuation and spacing. Each line except the last is closed with a semicolon; the last line is closed with a period. Each mnemonic and its value is separated by one space. For example:

ALSO,IDF,ICOUN PK;
IMILI Ø15b;
25X1 [redacted]

How many targets are in Pakistan;
or in military district 15;
and are assigned IDHS category
25X1 [redacted]

Expressed another way, this query "asks" how many targets

are in Pakistan and are assigned IDHS category code [redacted] 25X1

or

are in military district 15 and are assigned IDHS category
25X1 code [redacted]

For example:

```
ALSO,IDF,IMILI 1Ø9b;
IMILI 11Øb;
ICAT$ [redacted]                                    25X1
IGEO$ 65Ø/31 17 18 N/15Ø 11 Ø8 W.
```

How many targets
are in military district 109 and in the geographic square defined in the last line;
or, are in military district 110 and in the geographic square defined in the last line;
or, have been assigned IDHS category code [redacted] 25X1 and are located in the geographic square defined in the last line.

```
ALSO,IDF,IMILI 1Ø9b;
IMILI 11Øb;
ICOMP 333;
IGEO$ 25/31 17 18 N/15Ø 16 Ø8 W.
```

How many targets
are in military district 109 and in the geographic square defined in the last line;
or, are in military district 110 and in the geographic square defined in the last line;
or, have been assigned to IEG component 333 and are located in the geographic square defined in the last line.

THE MRNLIST
MNEMONIC

If you have received an answer to your preceding query, a list of machine reference numbers pertaining to that answer has been temporarily stored in the computer. You may refer to this list in an ALSO query, provided it is the next you transmit. To refer to such a list specify the

25X1

MRNLIST mnemonic instead of the usual feature in any line of the query. For example:

```
ALSO,IDF,ICOUN PK;
ICOUN CZ;
MRNLIST.
```

How many installations
are in Pakistan and are represented in a list of MRNs produced by the preceding query;
or, are in Czechoslovakia and are represented in a list of MRNs produced by the preceding query.

```
ALSO,IDF,MRNLIST;
ICOUN PK;
ICOUN CZ.
```

How many installations
are represented in a list of MRNs produced by the preceding query and are located in Czechoslovakia;
or, are located in Pakistan and in Czechoslovakia.

In your next query you can then refer to the list of MRNs produced by either of the queries cited above. For instance, if you want a sector of each record pertaining to the answer for one of the queries cited above specify MRNLIST in a GET query. Or specify MRNLIST in a subsequent INTER or ALSO query. Transmit the query after you have received an answer to one of the queries cited above.

CHAPTER V. SIMPLIFIED PIRL QUERIES

You can also use a simplified PIRL query, which consists of only one line. This type of PIRL query directs the computer to select one record from the IDF and display or print one sector of that record. The general form of a simplified query is this:

MRN,[Sector Mnemonic].

Any valid IDF sector mnemonic can be specified. For example:

551114,IHEAD.

Directs the computer to select record 551114 from the IDF and display or print the header sector on the device being used.

551114,ILOCA.

Directs the computer to select record 551114 from the IDF and display or print the ILOCA sector on the device being used.

The answer to a simplified PIRL query will always be returned to the device used for transmitting the query. When to specify the LEN of this device is explained in CHAPTERS VI and VII.

CHAPTER VI. SUBMITTING QUERIES AND RECEIVING ANSWERS ON A CRT

Before using a CRT for transmitting queries, be sure that you have constructed each query according to the instructions given in the preceding chapters. You may use a CRT to transmit PIRL queries for up to 30 minutes at any one time. This 30-minute interval begins when you press the UNSOL MSG function switch. During this time you may transmit as many queries as you wish. To make the most of this opportunity you may find it helpful to list all queries on scrap paper beforehand. After transmitting each query, you will receive an answer within a short time. Then submit the next query, if any. A teletypewriter will always be associated with the CRT you use; some messages from the computer system will be transmitted to it rather than to the CRT. Initialization and turnoff procedures and procedures for correcting errors can be found in Introduction to the Remote Access Computer Service.

SETTING UP COMMUNICATIONS WITH THE COMPUTER SYSTEM

To set up communications with the UNIVAC 494 computer system follow these steps in the order listed.

STEP 1 Press TYPE control switch, then

ERASE PAGE control switch

STEP 2 Type PIRL,LEN [of CRT you are using]

Press (CR) then (LF) keys

STEP 3 Type YOUR COMPONENT CODE,NAME,EXTENSION

Press (EOM) key

XMIT PAGE

Wait for the UNSOL MSG switch [top row of function switches] to go on. Then continue with STEP 4.

STEP 4 Press UNSOL MSG to turn it off; wait for this message to appear:

YOU ARE NOW IN PIRL MODE.
PRESS ERASE PAGE AND TYPE YOUR QUERY.

Once you have properly established communications with the computer system, you must respond to all messages within five minutes. You can respond by

* either submitting a query
* or pressing a function switch

If you do not respond, you will receive a message stating that communications are about to be terminated. Immediately after you receive such a message, communications will automatically be terminated.

If communications with the computer system have not been properly established, that is, the ACK MSG lamp does not go on, follow the procedures given below.

* If there is no message on the screen and the REPEAT ACTION status lamp is on, repeat STEPS 2, 3, and 4.

* If there is no message on the screen and the REPEAT ACTION status lamp is not on, contact the Chief, Systems Programming Branch, AID for assistance.

* If EOT is displayed anywhere on the screen,

press [ERASE PAGE]

repeat STEPS 2, 3, and 4.

* If a message that does not include EOT appears on the screen,

press [TERM] function switch

If still another message appears,

press [ERASE PAGE]

type KILLTHEJOB

Type these words exactly as given; do not separate them with spaces. Then,

press [XMIT PAGE]

Wait until EOT appears on the screen. When it does,

press [ERASE PAGE]

repeat STEPS 2, 3, and 4.

TRANSMITTING
QUERIES

To type one or more queries and transmit them to the computer follow the steps listed below. Remember that there are no lowercase letters on a CRT. Thus, the L key cannot be used to type the numeral 1.

Type — Your first query. As you do, it will appear on the screen.

Press (LF) — at the end of each line except the last. Do not press this key until you have typed the required punctuation at the end of each line.

Press (EOM) — key at the end of the last line.

If for any reason you want to retype your query, press ERASE PAGE and then retype it.

[XMIT PAGE] — control switch to transmit your query to the computer.

Shortly after you have transmitted your query, this message will be displayed:

PIRL IS NOW PROCESSING YOUR QUERY

If you do not receive this message within a few seconds, press PIRL MODE and retype your query. If there is an answer to your query, this message will be displayed:

NOW FORMATTING, STAND BY FOR OUTPUT

Your answer will then appear on the screen.

Before submitting additional queries,

* press the ERASE PAGE control switch if
  - the last query transmitted was an INTER or ALSO query
  - you received NULL SEARCH in answer to a GET or simplified query
* press PIRL MODE if
  - the last query transmitted was a GET or simplified query
  - and you received an answer

Now submit your next query.

If you have been using PIRL for at least 25 minutes but not more than 30, you will receive a message to this effect. Follow the instructions given in the message. If you have no additional queries to transmit, press the TERM function switch.

RECEIVING ANSWERS TO GET AND SIMPLIFIED QUERIES

Shortly after you have transmitted either a GET or simplified query, the first page of your answer will appear on the screen. If the entire answer cannot be displayed on the screen at one time, press the NEXT PAGE function switch as often as necessary. If you want to recall a previously displayed page, press the PREV PAGE function switch.

If you receive an obviously incorrect or garbled page, press the RE-XMIT function switch to correct this problem. If the page continues to be illegible, press ERASE PAGE and resubmit your query.

If there are no records that meet all specifications expressed in your GET query, the message, NULL SEARCH, will be displayed.

OUTPUT LIMITATIONS:
GET QUERIES

There are two instances when it is impossible to display the answer to a GET query:

1) more than 100 records are selected from the IDF in response to your query; this message will then be displayed:

   TOO MANY RECORDS IN ANSWER.
   NNNN UNIT RECORD(S) APPLY

2) in response to your query the amount of data selected from one sector exceeds the processing capabilities of PIRL; this message will then be displayed:

   THE NNNNN SECTOR FOR MRN NNNNNN TOO BIG TO PROCESS. YOU CAN GO TO BQL MODE.

   NNNNN represents a sector mnemonic.

In both instances the computer will retain a complete list of MRNs pertaining to your GET query. In both instances you have a choice of two options:

* either submit a new GET query that includes the MRNLIST mnemonic and optional specifications so that less than 100 records will be selected;

* or, using the BQL Mode, rewrite your query and transmit it according to the instructions given at the end of this chapter; this option will give you all the information you requested.

If the answer to your query requires the selection of no more than 100 records <u>but</u> the selected data will exceed 20 CRT pages, this message will appear on the screen:

OUTPUT PAGE FILE FULL. YOU MAY EXAMINE OUTPUT GENERATED.

In this case, you may display the first 20 pages of output if you wish. Or, you may choose one of the two options given above.

CONTINUE MESSAGE

A "continue" message will be transmitted to a CRT whenever a GET query includes optional specifications and the time required to meet these specifications exceeds one minute. The message will state the number of minutes required to select records and to display an answer. After receiving the message, you may do one of two things:

* either press the CONTINUE function switch [174]
* or reconstruct your query, press PIRL MODE, and submit the query

When PIRL MODE is pressed, a list of MRNs is not saved.

OBTAINING PRINTOUTS OF ANSWERS TO GET QUERIES

When PRINT Appears in Line 2

If you submit a GET query and PRINT is specified in line 2, you will receive this message:

TO WHICH LEN DO YOU WISH OUTPUT SENT? ---.

Press	ERASE PAGE
Type	LEN of teletypewriter or DCT 2000 to which you want your answer sent.
Press	XMIT PAGE

This message will appear:

FUNCTION COMPLETE

Do not use the keyboard until FUNCTION COMPLETE has been displayed. This message indicates that the computer has processed your request. However, no printing has begun. How soon you will receive a printed copy of your answer will depend on the number of other requests that must be serviced before yours.

While FUNCTION COMPLETE is on the screen, you may

* either resume reading the answer to your query by pressing the NEXT PAGE function switch
* or press PIRL MODE, then ERASE PAGE and enter another query
* or terminate your communications with the computer by pressing the TERM function switch

When PRINT Does Not Appear in Line 2

Although you may not have specified PRINT in line 2 of a GET query, you can still obtain a printed copy of the answer to that query. However, you must decide whether you want a printed copy of your answer before you submit another query; or, if you do not intend to submit another query, before you terminate communications with the computer system.

To obtain a printed copy of one page display the page you want printed. Then,

Press	Any PRINT function switch. This message will be displayed: TO WHICH LEN DO YOU WISH OUTPUT SENT? ---.
Type	ERASE PAGE control switch
Type	LEN of teletypewriter or DCT 2000 to which you want output sent.

Press [XMIT PAGE] control switch

You will receive this message:

FUNCTION COMPLETE

Do not use the keyboard until you see this message.

To obtain a printed copy of more than one page press the PRINT REPORT function switch. Then follow the procedures for obtaining a printed copy of one page.

GETTING PRINTOUTS OF ANSWERS TO SIMPLIFIED QUERIES

The procedures for getting printouts of answers to simplified queries are the same as those described in the preceding paragraph.

RECEIVING ANSWERS TO INTER AND ALSO QUERIES

The answers to INTER and ALSO queries will always be displayed in this form:

NNNN UNIT RECORD(S) APPLY

To retrieve the records represented by the total count submit a GET query that specifies the MRNLIST mnemonic. [See CHAPTER II.]

GETTING A LIST
OF MRNS

Each time you transmit a query and receive an answer, a list of machine reference numbers for the records pertaining to your answer is produced and stored temporarily in the computer. You can display this list at any time while your answer is on the screen. To display this list press the DISP MRNS function switch. If the list consists of more than 180 MRNs, only the first 180 will be displayed. If you need the entire list, follow the procedures given in When PRINT Does Not Appear in Line 2 with one exception: begin the sequence by pressing the PRINT MRNS function switch.

DISPLAYING QUERIES
DURING OUTPUT

At any time you can interrupt the display of output in order to reread the query that produced that output. To display such a query press the LAST QUERY function switch. In the case of GET and simplified queries the answer being displayed will be replaced by the query that produced that answer. This will in no way affect the answer. In the case of INTER and ALSO queries the answer will remain on the screen; the pertinent query will appear at the top of the screen.

To remove a displayed query and, when pertinent, redisplay an answer, press the NEXT PAGE function switch.

USING THE BATCH QUERY
LANGUAGE MODE

If the answer to your previous GET query could not be displayed because of the limitations described on page VI-6, you can get the information you need by using the Batch Query Language (BQL) Mode of PIRL.

Format

Composing a query in the BQL Mode can be done in one of two ways. Which method to use will depend upon what you specified in line 1 of your previous GET query. If you did not specify a repeating field in

line 1 of your previous GET query, use this BQL format and reconstruct your query:

```
FOR FILE IDF;    (LF)
REPORT [Sector Mnemonic] ON LEN.
```

In the REPORT statement specify the LEN of a teletypewriter, DCT 2000, or high-speed printer -- not that of a CRT.

If you specified a repeating field in line 1 of your previous GET query, the format of that query was this:

```
GET,IDF,[Mnemonic & Value],[Sector Mnemonic],[Field Mnemonic],[Item Mnemonic  Item Value],[Item Mnemonic  Item Value] . . .
```

Or this:

```
GET,IDF,[Mnemonic & Value],[Sector Mnemonic],[Field Mnemonic  Field Value].
```

Therefore, use this BQL format and reconstruct your query:

```
FOR FILE IDF;    (LF)
REPORT [Sector Mnemonic] ON LEN;    (LF)
WHEN [Sector Mnemonic],[Field Mnemonic],[Item 1 Mnemonic EQ Value 1];    (LF)
     [Item 2 Mnemonic EQ Value 2];    (LF)
                .
                .
                .
                .
     [Last Item Mnemonic EQ Last Value].
```

Note the margins, spacing, and punctuation to be observed when composing a query in this format. Begin typing the statements that are introduced by FOR, REPORT, and WHEN at the left margin. Indent five spaces from the left margin before typing all other statements. Note that a single space appears before and after the letters EQ. All other spacing to be observed is indicated in the format. The LEN you specify in line 2 must be that of a teletypewriter, DCT 2000, or high-speed printer -- not that of a CRT. For example:

```
FOR FILE IDF;
REPORT IHEAD ON Ø25;
WHEN IOBJE,OBJE,DATE EQ 71Ø415;
```

25X1 [redacted]

Transmission

Using the procedures given in SETTING UP COMMUNICATIONS WITH THE COMPUTER SYSTEM, call up PIRL if you have not done so. Then,

Press [BQL MODE] function switch

This message will be displayed:

YOU ARE NOW IN BQL MODE. CLEAR
SCREEN BEFORE ENTERING BQL STATEMENTS.

Press [ERASE PAGE] control switch

The screen will be cleared; the cursor will return to home position.

Type Your query

Press (EOM) at the end of the last line

[XMIT PAGE] control switch

You will receive this message on the screen:

PIRL TO BQL COMPLETE

You may now continue to submit PIRL queries or terminate your communications with the computer. Before submitting additional PIRL queries, press the PIRL MODE function switch. To terminate communications press TERM.

If you elect to reconstruct your previous GET query while you are on line with the computer, you may be notified that communications with the computer are about to be terminated. In this case, press the RE-XMIT function switch to extend communications for another five minutes. Then reconstruct your query and transmit it as described in this section.

CHAPTER VII. SUBMITTING QUERIES ON TELETYPEWRITERS

The procedures for transmitting queries on ASR, KSR, and Kleinschmidt teletypewriters are identical. Initialization and turnoff procedures and procedures for correcting errors are explained in Introduction to the Remote Access Computer Service.

Regardless of the kind of teletypewriter used, you can submit no more than two queries in one transmission.

TRANSMITTING QUERIES

Before transmitting a query, determine whether the computer system is available by pressing these keys in the order listed:

ALT MODE

CTRL + SVC Y simultaneously

CTRL + BELL G simultaneously

If the system is available, you will receive a RYE READY message. You will not receive any other messages from the computer before transmitting a query.

To transmit a query on a teletypewriter follow these procedures in the order listed.

Press (ALT MODE)

(CTRL) + (SMK A) simultaneously

Type PIRL,LEN (R/L)

YOUR COMPONENT CODE,NAME,EXTENSION (R/L)

Press (ALT MODE)

(CTRL) + (SOS Q) simultaneously

Type Line 1 of first query (R/L)

Line 2 of first query (R/L)

Next lines of first query (if any) (R/L) after each

Last line of first query. (R/L)

Repeat typing sequence for second query if any.

Press (ALT MODE)

(CTRL) + (EOT D) simultaneously

The LEN (logical equipment number) you specify here must be that of the teletypewriter, DCT 2000, or other on-line printer to which your answer will be transmitted. This device may or may not be the one you are using. If the first query to be transmitted is invalid, the computer will not

accept the second query (if any) submitted in the same transmission. Correct all errors and resubmit both queries.

If you submit two queries in one transmission, submit them in the sequence given in one of these combinations:

1 INTER query	1 ALSO query
1 INTER query	1 ALSO query
1 INTER query	1 ALSO query
1 ALSO query	1 GET query
1 INTER query	1 ALSO query
1 GET query	1 INTER query

Two GET queries require separate transmissions. The same is true for two simplified queries.

RECEIVING
ANSWERS

Shortly after you have transmitted one or two queries to the computer, the answer(s) will be printed by the teletypewriter, DCT 2000, or other on-line printer you specified via a LEN. If there are no records in the IDF that meet all your specifications, the message, NULL SEARCH, will be printed by the teletypewriter you are using.

To retrieve sectors from the records pertaining to the answer for an INTER or ALSO query, submit a GET query that includes the MRNLIST mnemonic. Type the GET query immediately after your INTER or ALSO query; transmit both at the same time. If both are not transmitted at the same time, the next transmission will destroy the list of MRNs produced by your INTER or ALSO query.

OUTPUT LIMITATIONS:
GET QUERIES

There are three instances when it is impossible to print the answer to a GET query.

1) When more than 25 records are selected from the IDF for an answer to be output by most printers; or when more than 50 records are selected for an answer to be printed by a Kleinschmidt, receive only, device; this message will then be printed by the teletypewriter you are using:

   TOO MANY UNIT RECORDS IN ANSWER.
   NNNN UNIT RECORD(S) APPLY.

2) In response to your query the amount of data selected from one sector exceeds the processing capabilities of PIRL; this message will then be printed by the teletypewriter you are using:

   THE NNNNN SECTOR FOR MRN NNNNNN
   TOO BIG TO PROCESS

   NNNNN represents a sector mnemonic.

3) A permissible number of records are selected but

   * the selected data will exceed <u>five pages</u> when output by a printer other than a Kleinschmidt, receive only

   * the selected data will exceed <u>ten pages</u> when output on a Kleinschmidt, receive only, printer

   If this happens, you will receive the first message listed above.

In each instance the computer will retain a complete list of MRNs pertaining to your previous GET query. If you receive any of the messages listed

on the preceding page, rewrite your query; include the MRNLIST mnemonic and optional specifications so that less than 25 or 50 [whichever is applicable] records will be selected from the file. Or, rewrite your query in the Batch Query Language if you need all selected records. [See User's Manual for the Batch Query Language. Copies are available in AID/PSG.]

CONTINUE MESSAGE

A "continue" message will be transmitted to a teletypewriter whenever a GET query includes optional specifications and the time required to meet those specifications exceeds one minute. The message will note the time required to answer your query and will request that you ask the Operations Branch, AID to terminate your communications with the computer system if you do not wish to continue. Be sure to give that branch the LEN of the teletypewriter from which you are transmitting, your job number, and the time you called PIRL.

GETTING A LIST
OF MRNS

Each time you transmit an INTER or an ALSO query and receive an answer, a list of machine reference numbers for the records pertaining to your answer is produced and stored temporarily in the computer. If you wish, you can get a copy of this list. However, to do so precludes submitting two queries in the same transmission.

To get a copy of the list type only one query and the word PRINT immediately after the last line of the query; then transmit this data.

```
Line 1 of query;      R/L
Line 2 of query;      R/L
Last line of query;
PRINT.
```

The list of MRNs will be printed by the same device that will print your answer.

CHAPTER VIII. SPECIAL DISPLAY AND SUMMARY OF PIRL QUERIES

GET QUERIES

Function	To select one or more records that meet your specifications and output a sector or partial sector of each.
Required Specification	One of 12 mnemonics and a related value pertaining to a target or group of targets; placed immediately after the file mnemonic.
Optional Specifications	Values that appear in one field or in one or more items in the same field in each selected record. To select records with blank fields or items specify the correct number of pound signs (##) and As.
Restrictions	Range of values: can be expressed only with field and item mnemonics. Transmission via teletypewriter: in one transmission only one GET query can be submitted with an INTER or ALSO query; two GET queries require separate transmissions.

For GET queries transmitted via a CRT:

- answer is unable to be displayed if more than 100 records are selected from the IDF and/or if the amount of data selected from one sector exceeds the processing capabilities of PIRL;

- if an answer requires the selection of no more than 100 records but the selected data will exceed 20 CRT pages, you can accept the first 20 pages or rewrite the query.

For all queries transmitted via a CRT:

- no more than 180 MRNs will be displayed at one time.

For GET queries transmitted via a teletypewriter:

- answer is unable to be printed when more than 25 records are selected from the IDF and answer is to be printed by a device other than a Kleinschmidt, receive only, printer;

- answer is unable to be printed when more than 50 records are selected and answer is to be printed by a Kleinschmidt, receive only;

- answer is unable to be printed if data selected from one sector exceeds processing capabilities of PIRL;

- if a permissible number of records are selected from the IDF, but the selected data will exceed 5 pages when output on most printers and 10 pages when output on a Kleinschmidt, receive only, printer, you will receive no answer.

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SAMPLE GET QUERIES

QUERY	ANSWER
Required Specifications:	
GET,IDF,IBE$$ [redacted] DISPLAY,IHEAD.	IHEAD sector of single record on target identified by BE [redacted]
GET,IDF,ICOUN AL. PRINT,ILOCA.	ILOCA sector from all records on Albanian targets
GET,IDF,IGEO$ 25/1Ø Ø4 53 N/14Ø 25 Ø7 E. PRINT,IBRIE.	IBRIE sectors from records on all targets located in an area 50 nm square, centered at coordinates cited in line 1
Required & Optional Specifications:	
GET,IDF,ICOUN CH,ILOCA,ELEV Ø25ØØ. PRINT,IOBJE.	IOBJE sectors from records on all Chinese targets located 2,500 ft above mean sea level
GET,IDF,ICAT$ [redacted] IBRIE,BRI:,DATE 7ØØ115. DISPLAY,IBRIE.	From records on all targets assigned IDHS category code [redacted] IBRIE sectors containing brief reports dated 15 Jan 70
Range of Values:	
GET,IDF,ICOUN UR,IHEAD,COMI [redacted] DISPLAY,IHEAD.	IHEAD sector from records on all USSR targets assigned COMIREX numbers [redacted] inclusive

25X1

TOP SECRET

VIII-3

TOP SECRET

25X1

SAMPLE GET QUERIES (CONTINUED)

QUERY	ANSWER
GET,IDF,IMILI 11Øb,IBRIE,BRI:,DATE 69Ø6Ø1/6912Ø1. DISPLAY,IBRIE.	From records on all targets in military district 11Ø, IBRIE sectors with brief reports produced between 1 Jun 69 & 1 Dec 69, inclusive
GET,IDF,ICOMP 233,IHEAD,COMI,CMIP 7A. DISPLAY,IHEAD.	IHEAD sectors from records on all targets assigned COMIREX numbers beginning with 7A, provided targets are responsibility of IEG component 233
Retrieval of Blank Fields or Items: GET,IDF,ICOMP 233,IHEAD,COMI,CMIP ###/AAA. PRINT,IHEAD.	IHEAD sectors from records on all targets assigned to IEG component 233 & having no COMIREX numbers
MRNLIST Mnemonic: GET,IDF,MRNLIST,IHEAD,COMP 21E. PRINT,IHEAD.	From records pertaining to preceding GET query, IHEAD sectors on targets assigned to IEG component 21E

25X1

25X1

25X1

TOP SECRET

TOP SECRET

25X1

SAMPLE GET QUERIES (CONTINUED)

QUERY	ANSWER
Mission Highlights:	
GET,IDF,MRN ØØØØØ1,IHIGH,HIGH,DATE 691215/691231. DISPLAY,IHIGH.	Mission highlights dated 15-31 Dec 69

TOP SECRET

25X1

25X1

25X1

25X1

TOP SECRET

INTER QUERIES

Function — To count the installations identified by all features specified and output the total

Restrictions — Choice of mnemonics is limited to eleven.

At least two but no more than twenty features are to be specified in each query.

Transmission via teletypewriter: no more than two can be submitted in the same transmission; only one can be transmitted with an ALSO or GET query.

Example

```
INTER,IDF,IMILI 332b;
IGEO$ 25/1Ø Ø4 36 N/11Ø 25 14 W;
```

25X1 [redacted]

ALSO QUERIES

Function — To count the installations identified by one of several features and by a second feature and to output the total.

Restrictions — Choice of mnemonics is limited to eleven.

At least three but no more than twenty features are to be specified in each query.

Transmission via teletypewriter: no more than 2 can be submitted in same transmission; only 1 can be transmitted with an INTER or GET query.

Example ALSO,IDF,ICOUN PK;
IMILI Ø15b;

25X1 [redacted]

SIMPLIFIED QUERIES

Function — Based on an MRN, to select one record from the IDF and print or display one sector of that record.

Restrictions — When transmitted via a teletypewriter, two queries require separate transmissions.

Answer is always returned to the on-line device used for transmitting the query.

Examples — 551114,IHEAD.

551114,ILOCA.

SPECIAL DISPLAY

At any time after you have set up communications with the computer system on a CRT, you can receive the so-called PIRLHELPER display. This display consists of a brief explanation of PIRL queries similar to that presented in CHAPTER I of this manual. It also includes brief explanations of GET, INTER, and ALSO queries and examples of each. To receive this display press function switch 173. This display does not affect queries, answers, or MRN lists.

CHAPTER IX. ERROR MESSAGES

Whenever you transmit an invalid query, you will receive an error message. Most error messages and what to do about each are explained on the following pages. You may also receive other error messages, but because they are self-explanatory, they have not been included in this manual.

ERROR MESSAGES
(Messages are listed in alphabetical order)

Error Message	Error	What To Do
HARDWARE ERROR FROM EFC	- - -	Resubmit query; if error recurs, contact Chief, Information Systems Branch, AID
ILL DELIM - NOT A BLANK	Required blank omitted	Correct spacing & resubmit query
ILL DELIM - NOT A COMMA	Required comma omitted	Correct punctuation & resubmit query
ILL DELIM - NOT SEMICOL	Required semicolon omitted	Correct punctuation & resubmit query
ILL DELIM - NOT SLASH	Required slash omitted	Correct punctuation & resubmit query
ILLEGAL FIELD NAME	Invalid field mnemonic for specified sector	Correct field mnemonic; resubmit query
ILLEGAL FILE NAME	Invalid file mnemonic used in query	Use IDF & resubmit query

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ERROR MESSAGES (CONTINUED)

Error Message	Error	What To Do
ILLEGAL GEO INDEX TERMS	X value specified with IGEO$ to define geographic square is over 999 nm	Reduce value to less than 1,000 nm; resubmit query
ILLEGAL INDEX NAME	Invalid mnemonic in required specification in GET query; or invalid mnemonic in INTER or ALSO query	Correct mnemonic; resubmit query; see APPENDIX A
ILLEGAL INDEX VALUE	Range of values used in required specification in line 1 of GET query or with mnemonic in INTER or ALSO query	Range of values cannot be used; replace range of values with 1 value; resubmit query
ILLEGAL ITEM NAME	Invalid item mnemonic for specified field & sector	Correct item mnemonic; resubmit query
ILLEGAL KEYBOARD MSG	Invalid function switch pressed on CRT control panel	Press correct function switch & submit new query or press TERM function switch

25X1

ERROR MESSAGES (CONTINUED)

Error Message	Error	What To Do
ILLEGAL LAT-LONG	Latitude &/or longitude specified with IGEO$ unrealistic or does not conform to required convention	Correct values & resubmit query; see APPENDIX A
ILLEGAL LEN	LEN of on-line device not authorized to receive output or number is incorrect	Specify valid LEN & resubmit query
ILLEGAL QUERY COMMAND	Invalid command (first word in query)	Type GET, INTER, or ALSO; resubmit query
ILLEGAL RFT IDENT	Invalid sector mnemonic in line 2 of GET query	Correct sector mnemonic & resubmit query
ILLEGAL SEARCH TERM IN QUERY	Invalid feature specified in INTER or ALSO query; or invalid value expressed in required specification in line 1 of GET query	See APPENDIX A; resubmit query

25X1

ERROR MESSAGES (CONTINUED)

Error Message	Error	What To Do
ILLEGAL SECTOR NAME	Invalid sector mnemonic	Correct sector mnemonic; resubmit query
ILLEGAL VALUE FOR DATE	Value for DATE item is invalid	Must be YYMMDD YY = year, last 2 digits MM = month, NN DD = day, NN Resubmit query
INTER, ALSO LS 2 COND	INTER query must consist of at least 2 features; ALSO query must consist of at least 3	Submit corrected query
INVALID MRN	MRN value is invalid	Correct MRN; resubmit query
LAST QUERY NOT RECEIVED	LAST QUERY function switch on CRT pressed but last query not received by computer	Enter new query
MRN LIST NOT SAVED	BQL MODE function switch on CRT pressed but no MRN list exists	Press PIRL MODE function switch & enter new PIRL query

25X1

ERROR MESSAGES (CONTINUED)

Error Message	Error	What To Do
NO DATA PAGES TO PRINT	PRINT PAGE or PRINT REPORT on CRT pressed but no data is available for printing	Press ERASE PAGE control switch & enter new PIRL query
NO INDEX VALUE GIVEN	Mnemonic in required specification in GET query specified without value	Insert value in line 1 & resubmit query
NO MRNLIST BUILT	MRNLIST mnemonic specified but list of MRNs unavailable	Enter new query that excludes MRNLIST mnemonic
NO MRN LIST TO PRINT	PRINT MRNS function switch on CRT pressed but no machine reference numbers are available for printing	Press ERASE PAGE control switch & enter new PIRL query
NO PREVIOUS PAGE	PREV PAGE switch on CRT pressed but no previous page exists	Press NEXT PAGE or press PIRL MODE function switch & enter new query

TOP SECRET

25X1

25X1

TOP SECRET

25X1

ERROR MESSAGES (CONTINUED)

Error Message	Error	What To Do
NO RFT SPECIFIED	Sector mnemonic not specified in line 2 of GET query	Specify sector mnemonic in line 2; resubmit query
NO STATEMENT TERMINATOR	Last line of query not closed with period	Insert period at end of line & resubmit query
NOTHING TO RETRANSMIT	RE-XMIT function switch on CRT pressed but there is no data to retransmit	Enter new PIRL query
QUERY INCOMPLETE	Line 2 of GET query is missing	Enter both lines
QUERY TOO BIG	Too many features specified in INTER or ALSO query	Delete excess features & re-submit query; maximum is 20
RANGE VALUES INCOMPAT	First & last values in range are either not alphabetic, not numeric, or not in correct alphanumeric sequence	Specify either all alpha or all numeric characters or correct sequence of alphanumeric characters in 1st & last values in range; resubmit query

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ERROR MESSAGES (CONTINUED)

Error Messages	Error	What To Do
RANGE VALUES REVERSED	First value in range is larger than last	Reverse values & resubmit query
UNRECOGNIZABLE STATUS nn FROM EFC	- - -	Call Chief, Information Systems Branch, AID
VALUE GR 40 CHAR	Value specified with field or item mnemonic is over 40 characters	Verify format & length of value; be sure field & item can be specified; correct value & resubmit query

APPENDIX A. MNEMONICS FOR THE PIRL QUERY LANGUAGE

One or more of the mnemonics listed below must be used in all GET, INTER, and ALSO queries. For INTER and ALSO queries the choice of mnemonics is limited to those listed below.

MNEMONICS USED IN GET, INTER, AND ALSO QUERIES
(N = number; A = letter; b = blank)

Mnemonic	Related Value	Format of Value	Remarks
IBE$$	BE number	10 characters: NNNN-NNNNN NNNNANNNNN NNNNAANNNN NNNN-ANNNN	If applicable, use leading zero as first character
ICAT$	IDHS category code	5 characters: NNNNN	None
ICOMI	COMIREX number	10 characters: NNANNNNAAb bNANNNNbbb	Left justify; press space bar for each blank position except first
ICOMP	IEG component	3 characters: NNA or NNN	None
ICOUN	Country code	2 characters: AA	None

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APPENDIX A. MNEMONICS FOR THE PIRL QUERY LANGUAGE (CONTINUED)

Mnemonic	Related Value	Format of Value	Remarks
IGEO$	Nautical miles & coordinates defining given geographic square	NNN/NN NN NN A/NNN NN NN A	If minutes & seconds are unknown, insert zeros; leading zeros for unused positions must be inserted in latitude & longitude values
IMILI	Military district number	4 characters: NNNb	Left justify; leave unused positions blank
INCAT	NPIC category code	3 characters: AAA, AAN, AAb	None
INPIC	NPIC number	12 characters: NNNN-NNNN-AN	Press space bar for each unused position; place values in correct positions
INTPC	NTP category code	5 characters: AAbbb or AAbbA	None
ITSTA	NPIC code for target status	1 character: A or N or blank	None
MRN	Machine reference number	Up to 6 characters: NNNNNN	Need not be right justified; leading zeros may be omitted

APPENDIX A. MNEMONICS FOR THE PIRL QUERY LANGUAGE (CONTINUED)

The field and item mnemonics listed below identify lengthy textual material and photo references and CANNOT be used in line 1 of GET queries.

Location (Sector)	Field	Item
IBRIE	AOT:	
IBRIE	DES:	
IBRIE	DIR:	TEXT
IBRIE	PHO:	
IBRIE	SEC:	
IBRIE	STA:	
ICOLL	COLL	TEXT
IDESC	DES:	TEXT
IDETE	AOT:	
IDETE	DES:	
IDETE	PHO:	
IDETE	SEC:	
IDETE	STA:	
IHIGH	HIGH	TEXT
IOBJE	OBJE	TEXT
IPHOT	PHO:	TEXT
ISECU	DFC:	TEXT
ISTAT	STA:	TEXT
INOTE	TEXT	
IREAD	TEXT	

APPENDIX B. CHARACTER SEQUENCE FOR A RANGE OF VALUES

Characters are listed from first to last.

Character or Symbol	Character or Symbol	Character or Symbol
#		
Blank	P	(
A	Q	:
B	R	,
C	S	0 zero
D	T	1
E	U	2
F	V	3
G	W	4
H	X	5
I	Y	6
J	Z	7
K	)	8
L	-	9
M	& ampersand	;
N	*	. period
O		

APPENDIX C. GLOSSARY

CHARACTER	A single letter, number, or symbol; the smallest unit of information considered in this manual.
CRT	Cathode-ray tube; synonymous with Sanders Tabular Display device.
FEATURE	In INTER and ALSO queries, that which identifies an installation or group of installations; expressed via a mnemonic and a related value.
FIELD	A unit of information consisting of one or more items; every field is identified by a mnemonic.
FILE	A set of records.
FORMAT	The arrangement of data in a file, record, sector, field, or item; also refers to the arrangement of data that is input or output.
HOME POSITION	Character position 1, line 1 on a CRT screen.
IDF	Installations Data File.

ITEM	A unit of information consisting of one or more characters; an item is identified by a mnemonic; when it is the only item in a field, an item has no mnemonic.
MNEMONIC	A combination of letters or of letters and symbols used to identify a sector, field, or item.
MRN	Machine reference number; assigned by the computer to each record in the IDF for identification purposes; will not be changed or transferred to another record.
ON LINE	The status of equipment when connected to the UNIVAC 494 computer system.
QUERY	One or more statements directing the computer to perform certain operations, e.g., to select records from the IDF, total the number of targets identified by certain features, output data.
RECORD	In the IDF, a unit of information consisting of one or more sectors; each record is identified by a machine reference number.
REPEATING FIELD	A field used as often as necessary, that is, repeated to record different values; all occurrences (i.e., instances) of the field are identified by the same mnemonic; consult a description of the IDF to learn which fields are repeating fields.
SECTOR	A unit of information consisting of one or more fields; identified by a mnemonic.
UNIT RECORD	See RECORD.

VALUE	The contents of a given record, sector, field, or item; synonymous with entry and data; also the data expressed with each mnemonic in a query.